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REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed March 20, 2008. In the Office Action, the Examiner notes that claims 1, 6-12 and 14 are pending and rejected.

In view of the following remarks, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of the claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response.

REJECTIONS

35 U.S.C. §103

Claims 1, 6, 9, and 10

The Examiner has rejected claims 1, 6, 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Boukobza et al. (U.S. Patent No. 6,122,664, hereinafter "Boukobza") and Robinson et al. (U.S. Patent 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

Claims 1 and 6

According to MPEP §2143, to establish a prima facie case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim

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limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Boukobza and Robinson fails to teach or suggest all the claim limitations. Namely, the combination of Boukobza and Robinson fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at each of a plurality of nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1.

Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system. Boukobza further discloses that monitoring is configured and then distributed in a filtered way from the management node to autonomous agents installed in each of the nodes to be monitored in order either to locally process the different object types or all of the objects of a domain called a global object, or to feed back information to be displayed in a graphical interface of the management node. Boukobza further discloses that each agent includes a plurality of modules specific to the different object types or to a particular domain, and that each module measures static and dynamic parameters particular to the object type it monitors and collects the measurements. (Boukobza, Abstract).

Boukobza, however, fails to teach or suggest at least the features of monitoring a rate of change of usage of resources at each of a plurality of nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1. Rather, while Boukobza states that a module on a node that is being monitored measures both static and dynamic parameters particular to an object that the module monitors, Boukobza fails to teach or suggest monitoring a rate of change of usage of a resource, as claimed in Applicants' claim 1. A generic statement that a node being monitored measures dynamic parameters, as taught in Boukobza, does not teach or

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suggest monitoring a rate of change, much less a rate of change of the usage of the resources of a node, as claimed in Applicants' claim 1.

In the Office Action, the Examiner cites specific portions of Boukobza (namely, Col. 1, Lines 33-35 and Col. 2, Lines 21-55), asserting that the cited portions of Boukobza disclose Applicants' limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1. (Office Action, Pg. 2).

The cited portions of Boukobza, however, fail to teach or suggest any parameter indicative of a rate of change of usage of a resource or monitoring a rate of change of usage of a resource. Rather, the cited portions of Boukobza merely describe generic parameters that may be measured or tested relative to predefined thresholds. The cited portions of Boukobza do not teach or suggest monitoring a rate of change of usage of a resource. Applicants respectfully request that the Examiner specifically point out where in the cited portion of Boukobza, or any other portion of Boukobza, there is any teaching or suggestion of a monitoring a rate of change of usage of a resource.

Thus, since Boukobza fails to teach or suggest a rate of change of usage of a resource, Boukobza must fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Furthermore, Robinson fails to bridge the substantial gap between Boukobza and Applicants' claim 1.

In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path

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management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Robinson, however, fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at each of a plurality of nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

Rather, Robinson merely describes a polling rate, which, as stated in Robinson, is a rate at which network elements are polled by a management system. (Robinson, Col. 7, Lines 20-25). A polling rate at which network elements are polled by a management system, as taught in Robinson, is not a rate of change of usage of a resource at a node, as claimed in Applicants' claim 1.

Thus, since Robinson fails to teach or suggest a rate of change of usage of a resource, Robinson also fails to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Thus, since Boukobza and Robinson each fails to teach or suggest a rate of change of usage of a resource, any permissible combination of Boukobza and Robinson must fail to teach or suggest a rate of change of usage of a resource and, therefore, any permissible combination of Boukobza and Robinson must fail to teach or suggest suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

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Furthermore, since Boukobza and Robinson each fail to teach or suggest monitoring a rate of change of usage of a resource, Boukobza and Robinson must each also fail to teach or suggest other limitations of Applicants' claim 1 associated with a rate of change of usage of a resource. Specifically, Boukobza and Robinson must also fail to teach or suggest each of the limitations of "determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a second threshold" and "generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the second threshold, else updating the time interval," as claimed in Applicants' claim 1.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 1, as a whole. Therefore, independent claim 1 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 6 depends directly from independent claim 1 and recites additional limitations therefor. Therefore, dependent claim 6 also is not obvious over Boukobza in view of Robinson, and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim 9

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

Boukobza and Robinson, however, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole. Namely, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9. Thus,

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Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole.

Furthermore, Applicants note that, according to MPEP §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

The Examiner has failed to establish a *prima facie* case of obviousness of Applicants' claim 9. Specifically, the Examiner has failed to provide any arguments or reasoning addressing Applicants' claim 9 limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold." The Examiner does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 9, without regard for the differences between Applicants' claim 1 and claim 9. Accordingly, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness of Applicants' claim 9.

As such, independent claim 9 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim 10

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

As further described herein, with respect to claim 1, Boukobza and Robinson, alone or in combination, fail to teach or suggest a rate of change of usage of a resource.

Thus, for at least the reasons described herein with respect to claim 1, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, fail to teach

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or suggest at least the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource," as claimed in Applicants' claim 10.

Additionally, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, also fail to teach or suggest a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station. Thus, Boukobza and Robinson, alone or in combination, must also fail to teach or suggest at least the limitation that "said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Applicants' claim 10.

Furthermore, Applicants note that, similar to claim 9, the Examiner has failed to provide any arguments or reasoning addressing Applicants' claim 10 limitation of "wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station." The Examiner does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 10, without regard for the differences between Applicants' claim 1 and claim 10. Accordingly, Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness of Applicants' claim 10.

As such, independent claim 10 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 7, 8, 11, 12 and 14

Claims 7, 8, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama et al. (U.S. Patent No. 6,857,025, hereinafter "Maruyama") and Robinson et al. (U.S. Patent No. 6,570,867, hereinafter "Robinson").

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Applicants respectfully traverse the rejection.

Claim 7 recites the features of monitoring the rate of change of usage of resources at a node and reporting to a management station of the network when the rate of change of the usage of the resources of the node exceeds a threshold. Maruyama and Robinson, however, alone or in combination, fail to teach or suggest those features.

As discussed hereinabove, Robinson merely describes a polling rate, which, as stated in Robinson, is a rate at which network elements are polled by a management system. (Robinson, Col. 7, Lines 20-25). Robinson is devoid of any teaching or suggestion of monitoring the rate of change of usage of resources at a node, or reporting to a management station of the network when the rate of change of the usage of the resources of the node exceeds a threshold, as claimed in Applicants' claim 7.

Furthermore, Maruyama fails to bridge the substantial gap between Robinson and Applicants' claim 7.

Maruyama discloses a system for supporting (min,max) based Service Level Agreements (SLAs) on outbound bandwidth usage for a plurality of customers whose applications (e.g., web sites) are hosted by a server farm that consists of a very large number of servers. The system employs a feedback system that enforces the outbound link bandwidth SLAs by regulating the inbound traffic to a server or server farm. Inbound traffic is admitted to servers using a rate denoted as $Rt(i,j)$, which is the amount of the i^{th} customer's j^{th} type of traffic that can be admitted within a service cycle time to servers which support the i^{th} customer. A centralized device computes $Rt(i,j)$ based on the history of admitted inbound traffic to servers, the history of generated outbound traffic from servers, and the SLAs of various customers. The $Rt(i,j)$ value is then relayed to one or more inbound traffic limiters that regulate the inbound traffic using the rates $Rt(i,j)$ in a given service cycle time. (Maruyama, Abstract).

Maruyama, however, alone or in combination with Robinson, fails to teach or suggest Applicants' claim 7, as a whole. Namely, Maruyama, alone or in combination with Robinson, fails to teach or suggest monitoring the rate of change of usage of resources at a node and reporting to a management station of the network when the

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rate of change of the usage of the resources of the node exceeds a threshold, as claimed in Applicants' claim 7.

Rather, Maruyama merely discloses computation of a rate $Rt(i,j)$ that is the amount of traffic that can be admitted to a server within a service cycle time. A traffic admission rate, as disclosed in Maruyama, does not teach or suggest a rate of change of usage of a resource, as claimed in Applicants' claim 7. Maruyama is devoid of any teaching or suggestion of any rate of change of usage of a resource and, thus, fails to teach or suggest monitoring the rate of change of usage of resources at a node and reporting to a management station of the network when the rate of change of the usage of the resources of the node exceeds a threshold, as claimed in Applicants' claim 7.

Thus, since Maruyama and Robinson each fail to teach or suggest the limitations of "monitoring usage of the resource in a node to determine when a rate of change of the usage exceeds a first predetermined threshold" and "reporting to a management station of the network when the rate of change of the usage exceeds said first predetermined threshold," any conceivable combination of Maruyama and Robinson (assuming such combination is even possible) must also fail to teach or suggest the limitations of "monitoring usage of the resource in a node to determine when a rate of change of the usage exceeds a first predetermined threshold" and "reporting to a management station of the network when the rate of change of the usage exceeds said first predetermined threshold," as claimed in Applicants' claim 7.

Thus, Maruyama and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 7, as a whole.

Therefore, independent claim 7 is patentable over Maruyama and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Similarly, independent claim 8 recites features similar to the features of claim 7.

Namely, independent claim 8 also includes the feature of a rate of change of the usage of resources. Thus, for at least the same reasons discussed herein with respect to claim 7, independent claim 8 also is patentable over Maruyama and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 11, 12 and 14 depend from independent claims 7 and 8 and recite additional limitations therefor. Therefore, dependent claims 11, 12 and 14 also are not obvious

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Maruyama and Robinson, and, thus, fully satisfy the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

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CONCLUSION

Thus, Applicants submit that all of the claims presently in the application are non-obvious and are patentable under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 3/31/08



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